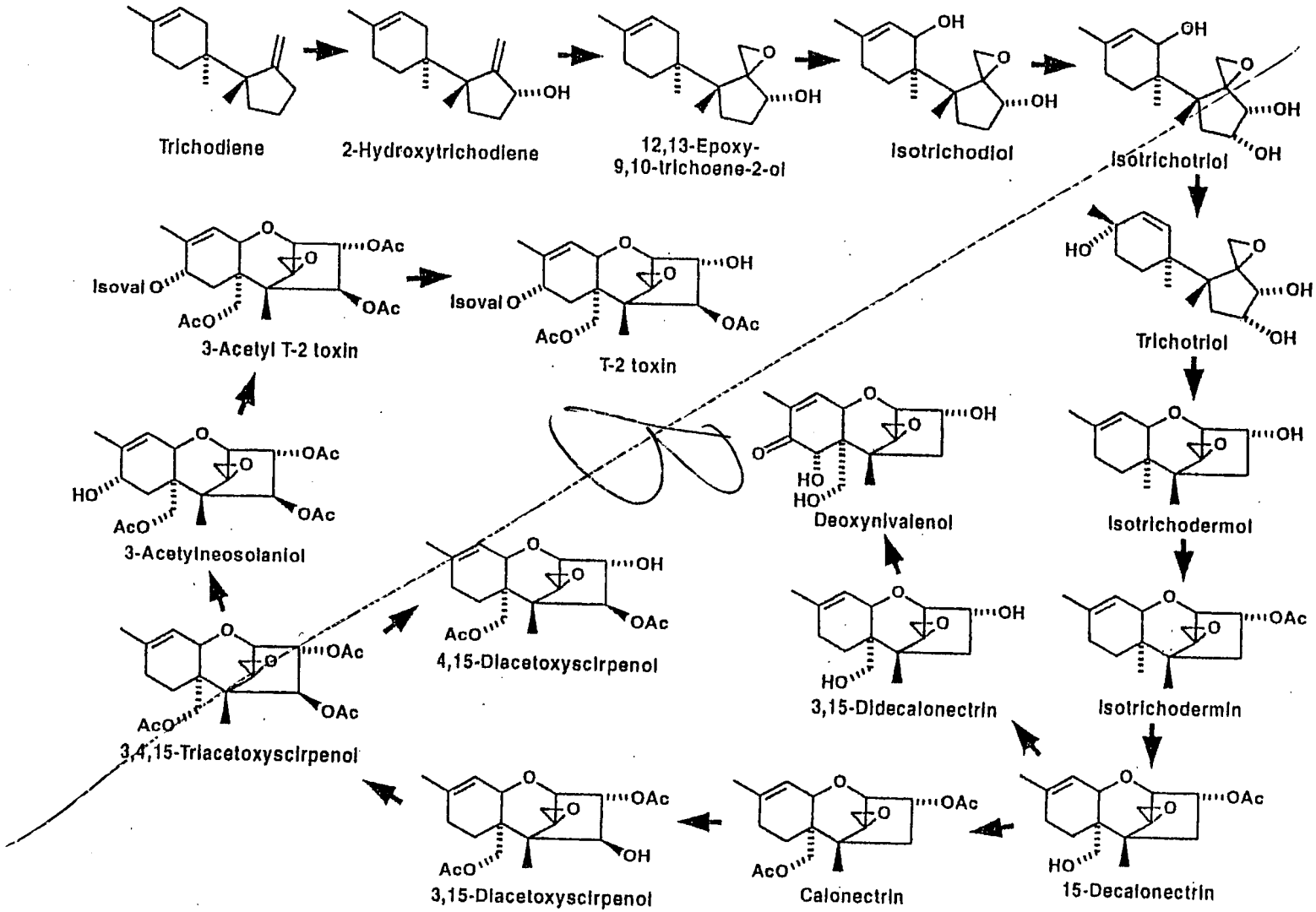

Fig. 1

GAATTCTCTCA[redacted]CGGCCTCATCTGGCAGGTGCTAATA[redacted]TTCTA 45
CCCGCGCTTGGCTACCTATGCCACACACAAAGCTTCATGTTTGGT 90
TCATATCGTATACTCGCTTCAACAGTTCTGCGGGTACGACTCTCG 135
TATGGATGTAATAAACAAATGTTCCGACCTATTATGCCGAGTTAC 180
CGTGGACAATTATCGGGCCGGAAAAGAATGCATTTGTGAATTGTA 225
ATCCTGCCTGTTTGTGGAGTGATAAGTGACATATTGGAAAAGTCG 270
TCAAGCAATTGGAGGTTTCATCAACTGTGGAGTCATCGTTTTGGG 315
CAAACAATACTATGTAGGGTAGGCTTCTGCTGCAGCATCAATGAC 360
TCGTTTGGATCGAGTCCTTTTGTTGCCAAGGCGTATGGGGCCTGC 405
AGGGAACGAGTCAGTCGTATCAGGCCGGTGAGGCAAATGCCGTTT 450
CGCAGCAGCTATCATTTGTCGCGGGATTTTCGCGAAGCTTTGCGT 495
GACGAGTCAAATCCGCACATCTTGATTCATGAGTTGTTGAATTTA 540
GCTGTTCATTCGTGAGTGGCTAAAGCGTATCTAGTCGATTGTCAA 585
ATTCAGACTTGACAGGTCCCTTGATGAATGAGACGTCGGATGTCC 630
CTAGCCGAGATGCGGATTGTGACAACGGAAGAGACAGGGGCAGGG 675
TTCATGGGTGTTGAACCTTGTTCACTGAAACGGTGATGTCTTTGG 720
TCTACAAAGTATCCTTCACATGTCTCTGTTCCCAGACCACGTGGT 765
TATTCTGGCATCCGGGTCCTATTGATTGGCTGATTTCTTGCACTG 810
ATACATACAAATAAGTCCAAGACTGTATTCTACTGGCAAAATTAT 855
GCCGACAAGGGGAAATCATTCTGAATTAGTGATGAAGCATGCCGT 900
CGAAGCCGAAGAGAAACTTTGCGCAGCAACTGGAAAGACCTGTGG 945
GCTGTAGAGCGCACAGCACGGTAGTAAGACCTACGGCCCTGGTAT 990
CATGGTTGTAGCCTCTTCCGTATTGCTCACATATCCACCGGTTTT 1035
CTACATAAACAGTCTGAGTCCTGATAGTGGATATTATATCTTCCA 1080
GGACCTAGTCTAGGTAGTAGTCGGCATTTGAAACGCCTAGTGGCA 1125
AGAGATCGCTTAGCCTCCAGCCTGGCAATATCGCGGCTTCCTCAG 1170
GTTGTACCACGAATGATGATCTCAATTGTGCTTCCCCTGTCGTGA 1215
ATTTGCTAGTGCGACGGGACTTGCCAGGCTTACGGCACCTACAAG 1260
TCGCGCCAGCCTTCTGACAGTGATTGTATGCAAGATCGTCATTAG 1305
TTATGATTAAGCTTTGATAAACAAGAGCGCCACAGCCTTTCTTTA 1350
ACTCCGACAACCTCAACGGTGACATGCATACCGCGTGACACTATT 1395
TCCCATGGTGTGAACACCATCAATGACTTAGAGTAGATAACCACT 1440
TGAAACTTCTAGAAATGTCCAAGAAACTACACTCAGTGTTTCATA 1485
GAACTAAGACAATGTTCATTGAAGGATGGGATTTGAGACTCCGTA 1530
CTGCTTCACCTCGGAAAATAAGCACTGTTTAGCACCCGTTAAGCC 1575
AAGTCCTTCAAACGTGGGGACGGATTTAACCAACAGCAGAGTGGA 1620
TAAGCCTGTACTCTACTCATTGAATGTATATAATACATTGCTAGG 1665
TACATACGCAGCTTTCAGGCACAGATAACGAAGATCTTAGGGTAG 1710
ATTCCAAAACATCGGAAGGGGTCACAGATCGCACTAGCTACTATG 1755
CCATCCAGAGCCTCTTGCTAACCAAACAGAGCTAAGTCGCTTAAC 1800

Fig. 2A

```
CCTTATTCAAACTACACAGTTGTATTGTGCATCCGGGATCTAACT 1845
GTCTTGGACAAGCGTGTTCTGTATCCGTAACGGCTGGTGGTTTTG 1890
TAGGGTATGATAGAATGGTTGCACTTAAGGCCTGTCGACTAGGTA 1935
AGCTTTTCCCAGGGAAGAATAAAACACCGCGGCTGCTTAGACAAG 1980
TGAGGCTTTCTTCTCCGTCAACAAACTGCCGTCTCACTAGTCCAA 2025
ACTTGGTCACGGACAACAGCCGAACTCAAACATTTAGCCTCAGGA 2070
TTCATCCCTAGCTTTAGGCCTACTCCTCGTCCCTTGACACCGGGA 2115
TGTAGTTCCTATCGCTTGCGTAGCTCTTTACTGCATGTGCCGAGC 2160
TAAAGATAAAATCGGACTAAAGATTCGTTCCGGGAGCCGAATGCT 2205
TTCTCAAGCTCGTCGTGTTGCAGGGGATGGAAGACCTCCAGCGTA 2250
CGTCACGGTCTCTATCACTACGAATTTGCTGGGAAGGCTATTTGC 2295
ATTAATGTCAAGTCAATTATTAGGCCTAACAACACAAGTTTAACT 2340
AAAGATTGTGGATGGTTGACATTTGCCATATGTTGATATATAGTT 2385
GATAGCAACAGCACTTTGCAATAGGACAATAATAGCGACTTGACT 2430
TGAAAATTCGCAAAGAACTGTTATAAATCATTATACCATTATCAT 2475
CATGGAGAACTTTCCCACTGAGTATTTTCTCAACACTTCTGTGCG 2520
  M  E  N  F  P  T  E  Y  F  L  N  T  S  V  R
CCTTCTCGAGTACATTCGATACCGAGATAGCAATTATACCCGGGA 2565
  L  L  E  Y  I  R  Y  R  D  S  N  Y  T  R  E
AGAGCGTATCGAGAATTTGCACTATGCTTACAACAAGGCTGCTCA 2610
  E  R  I  E  N  L  H  Y  A  Y  N  K  A  A  H
TCACTTTGCTCAGCCACGACAACAGCAGCTGCTCAAGGTAGACCC 2655
  H  F  A  Q  P  R  Q  Q  Q  L  L  K  V  D  P
TAAGCGACTACAGGCTTCCCTCCAAACTATTGTTGGCATGGTGGT 2700
  K  R  L  Q  A  S  L  Q  T  I  V  G  M  V  V
ATACAGTTGGGCAAAGGTCTCCAAAGAGTGTATGGCGGATCTATC 2745
  Y  S  W  A  K  V  S  K  E  C  M  A  D  L  S
TATTCATTACACGTACACACTCGTTTTGGATGACAGCAGCGATGA 2790
  I  H  Y  T  Y  T  L  V  L  D  D  S  S  D  D
TCCGTATCCAGCCATGATGAACTATTTCAACGATCTTCAGGCTGG 2835
  P  Y  P  A  M  M  N  Y  F  N  D  L  Q  A  G
ACGAGAACAGGCCCACCCATGGTGGGCGCTTGTTAATGAGCACTT 2880
  R  E  Q  A  H  P  W  W  A  L  V  N  E  H  F
TCCCAATGTCCTTCGACATTTTGGTCCCTTCTGCTCATTGAACCT 2925
  P  N  V  L  R  H  F  G  P  F  C  S  L  N  L
TATCCGCAGCACTCTTGACTGTAAGTACCCTGGCTCTATTATTTC 2970
  I  R  S  T  L  D
ACCGCCTTAATAAGCTAACAGTGATGGAATTATAGTTTTTGAGGG 3015
                                F  F  E  G
```

Fig. 2B

```
ATGCTGGATCGCCAGTACAACTTTGGAGGATTTCCAGGATCTCA 3060
  C  W  I  E  Q  Y  N  F  G  G  F  P  G  S  H
TGACTATCCTCAGTTTCTTCGACGCATGAATGGCTTGGGTCACTG 3105
  D  Y  P  Q  F  L  R  R  M  N  G  L  G  H  C
TGTCGGGGCTTCTTTGTGGCCCAAAGAGCAGTTTGATGAGAGAGG 3150
  V  G  A  S  L  W  P  K  E  Q  F  D  E  R  G
TCTATTCCTTGAAATCACATCAGCCATTGCTCAGATGGAGAACTG 3195
  L  F  L  E  I  T  S  A  I  A  Q  M  E  N  W
GATGGTCTGGGTCAATGATCTCATGTCTTTCTACAAGGAGTTCGA 3240
  M  V  W  V  N  D  L  M  S  F  Y  K  E  F  D
TGATGAGCGTGACCAGATCAGTCTCGTCAAGAACTACGTCGTCTC 3285
  D  E  R  D  Q  I  S  L  V  K  N  Y  V  V  S
TGATGAGATCACTCTCCACGAAGCTTTAGAGAAGCTCACCCAGGA 3330
  D  E  I  T  L  H  E  A  L  E  K  L  T  Q  D
CACTCTACACTCGTCCAAGCAGATGGTAGCTGTCTTCTCTGACAA 3375
  T  L  H  S  S  K  Q  M  V  A  V  F  S  D  K
GGACCCTCAGGTGATGGACACGATTGAGTGCTTCATGCACGGCTA 3420
  D  P  Q  V  M  D  T  I  E  C  F  M  H  G  Y
TGTCACGTGGCACTTGTGCGATCACAGGTACCGTCTGAATGAGAT 3465
  V  T  W  H  L  C  D  H  R  Y  R  L  N  E  I
CTACGAAAAGGTCAAAGGACAAAAGACCGAGGACGCTCAGAAGTT 3510
  Y  E  K  V  K  G  Q  K  T  E  D  A  Q  K  F
CTGCAAGTTCTATGAGCAGGCTGCTAACGTCGGAGCCGTTTCGCC 3555
  C  K  F  Y  E  Q  A  A  N  V  G  A  V  S  P
CTCGGAGTGGGCTTATCCACCTATTGCGCAACTGGCAAACATTCG 3600
  S  E  W  A  Y  P  P  I  A  Q  L  A  N  I  R
GTCCAAGGATGTGAAGGATGTGAAGGATGTGAAGGAGATTCAGAA 3645
  S  K  D  V  K  D  V  K  D  V  K  E  I  Q  K
GCCTCTGCTGAGCTCAATTGAGCTAGTGGAATGACCGACGGTGAG 3690
  P  L  L  S  S  I  E  L  V  E  .
ATGGAAGTATGTTTTGCGGGTACTCGCTAGGAGAATACTGGTCGT 3735
TTATCATGATTACAAATAGCTTGGTTATGTTTTTATTAGCATTTA 3780
CAGTTGAACAAGGATAATTACTACTGAATAGGCAGCTGAAACTGA 3825
TGTCTGTAACTCCAGCCTGTTATTCCACTTGCCTGCAGGTCTTTG 3870
CATGGCCAAGTCATACATACCTGTTACGGTGTCGGTGCGACAGGG 3915
CTATCCATACCCCGGCCCAGCCTGCAGTAGAGCAGGCGTCACGGC 3960
CTGTAGTGCGCTGCGGGAATCTTCCACCCGTTCGGATGTGGGAAG 4005
TTTTGTTGTCCTCGGGGCTAACACATTCCAACCATTAATTGATCT 4050
TCAAAACGCTTGCATTTGCTCTATATGGCCGGCCTTGATCCTTGT 4095
ATATTTTCACCATCTGACATTTTCTGCACAAGGCGTACAGAAACC 4140
```

Fig. 2C

ACACGAGGTA[illegible]TTTCATGGCCGCTTGGCCACTATTGC[illegible]ACAC 4185
GACACACATGTTAAACTCTATCCTTGCATTATATTGTAACATCGC 4230
CTAACATCTCCACGCACTATTCCTTTGCGTTCCTTATTCATCCTC 4275
AACTGTATGCCAACCAACAATCATCAAATTATTATTGCAGTTAGT 4320
CATCATGGATTTCCCAAAGCCGAGGCAGGTTAGAGAGACGAGCCT 4365
GTTGATGTACTACCTGGACGTCGTGTTTTCTCTACAATGCATTAC 4410
CCCAAACAACAATTGTCTGGGCAAGAGAGAGTGGCTGTTGACTAT 4455
ACTAACCTCTGCTCGGCCTACGTACTATGCAACATTGTGCCTGGC 4500
CCTCCTTTATAAAGAATCCCTCTCAAGCCCTTGCAGAGCCGAACA 4545
AGCGGTAGTATGGAAGAGAGAAAAGACCTACTACTACATTCTTGC 4590
GCTCCAAGAGTCTCAGAAGCTGTTGGGTGGACTCGACAAGACTTT 4635
TGGTATCACAAGGCTGAAGGGGACCGTCGTTGCCCTTGCTTGCAT 4680
GATCCAGCTCATCGGGTTTGAGGTAAGACGAATCCACAACGCTCA 4725
CAATGTTCAATACCCGATCTATAATTATCATTGGAGACTAACGCA 4770
TTTGGACAGTCTTCGCACTTAAGTAGGGGAGATTGGCGCGTTCAC 4815
CTCCTTGCAGCCAACACACTCATTCCTGTGTTGGTCGAGGGTTGG 4860
TCCACAGCTTTGCAATCAGGCCCTCCAGCCACTTCAATCTGGTGT 4905
GAGTTGGATGATTCGGATTTCGGCTCAACTGAAGATCAAAATTCC 4950
TTGAGCTTCGAATATCTTGGTGCTTTGAGATTCTTGTCAAACTCC 4995
CTGGCGACAACCGGTATCTTATCGTGCATATCTGTTGGCCCATCA 5040
GCACCATTCGAAGATTATGGTCACCTCTTAGACCAGCCAGGCCTC 5085
ATACAGATGGATGAGGTGCTAGGGTGCAAGAACTGGGCCATGCTG 5130
ACTATACTCGAAGTGGGTAAGCTGGACCGGTGGAAGCGCCAGGAG 5175
CAAGAGCACAACCGTTTGAGCCTAAAGACACTCGCTAGGCGTGCA 5220
ATGATGATAGAGGACATGTTGACAGACGAGCTACAAAAGCTTCCG 5265
GCAAGCGAGACACTGCCTGATCTCATCAACCATATTTACGCCGCC 5310
TCCATTATGACATACCTGCATACAGTAGTTTCAGGACTCAATCCC 5355
AACCTTTCAGAGGTCCAGGATAGTGTGAACGCAACGATTCTATTG 5400
TTGGAGAGACTCCCAGATCTGCAAGCTGTCGCGTCTGTTACTTGG 5445
CCTTTGGCTGTCACAGGTTGCATGGCCTCGGAAAGTCATAAGGAC 5490
TTTTTCAGAAATACTCTGAGGTCCTATGACGCGACATTCACCTCG 5535
TTAAAAAAGTATGATGGAACTCTTGAGGTTTTGGAAGACGCTTGG 5580
AACAAACGAGAGATAGACAGAGAGTCTCCAATCAGGTGGGAGGAT 5625
CTGATGGATCACCATGGGCTTCCAGTGCTCCTACTCTAGGGTTGG 5670
TATCATCCCCAGACACTCGTGCTACCAACACAGAGACTGTCTTTA 5715
GTCTTTATTTTGCATACGCTACCTGATTCATGTAAGTTCGGTGTT 5760
CACTTGCCGACGATACATCCAGGGAAGTCTGACTAGTCAGTGCTT 5805
ATGGTTCGATTCCTTTTGGCGTTATAAACCGGTTCTGTCATGAAG 5850
CAAGATATGATTTCGATGAGAGGGAAGAGCGAACAACTATTCACA 5895
TGTAACTTAAATTATAGACTTTCAGTATAAACTTTCGATTATAAG 5940

Fig. 2D

CCACACCTAAT[redacted]AAGTATATATATCCAATCAATTGTAC[redacted]AAAG 5985
TAGTCTGGAATCATGGTTGTCAATCGGTGCTGTGTTCCTCCATAT 6030
TCTTGACATGATTTGACTTGTCCGGTCCGCGCGACACACGATGTT 6075
GATCATAATGAAGGAGTGTTGATTTTGAGTAGGAAAAGATATTGC 6120
AGTTCCTTGTAAAGATCGTTCGGAACGAAACCCGGCTGGAGTATG 6165
ATTTGTTCGTGGACCCGAAGTGCAAAAATGCCGGAATTAATGACA 6210
GGCATTCTCTTCAGTTGGCTTGGGTTGAGATATTGGTCTGCGTCT 6255
GTTGGAAAGCTGACATTGGATCTTCAACATGCTTTTGCCGCGACC 6300
CAGATGGTTGCGCATAAGGCAGCGCTGACTCCCGAGTATGCGAAA 6345
ACCTCGAGCCACGAAACATCAGGGTCCATTTCCGTTGAGTCGATC 6390
AATTTAGCGGCTGCGAGCATCTTGAGAGTTTTGGGATAAGTCTTT 6435
GAGTGGACAACAGTAATGTGATATGGTATGATCTGATGTCGTGTT 6480
CGTGTTGATGAGAATAAATTGTTGAGCTGATTCCCATCGGCTCTG 6525
ACCAACAGTTAATATCTAAATTCTTCTACTATCTATGCACTATGG 6570
ACTGGGGAGTCAACGTTGTTCGTTCTCTGGAGAGAGGCCTAAATG 6615
ATCTTGAATTGGTGTGTAACTGAAACGTCAGTAGAAGGCCTGAAT 6660
TCGCAAGCGCCGAACTTCCGGCCTACACTGCCACTGACTTTGCGG 6705
CTCAGCATTTAGATAGTGGGCTTCACAGCGGGTATTGTCTCTTCT 6750
GCAGCATTGCTACGGATTTATCGGCTTCAACAACCCTTGCTGAAC 6795
CAATGATGGGTTACATTGATGGGCATTCGTTTTTAAACTTTTGTC 6840
AGGTTGGCAGAGGCCTAAAATCTGCCGTCGGTGTGTGAGAGACCA 6885
TGAATCAGGCCCCTGCATTAATGTAGGGCATTTGCTAGCCCGCGG 6930
CAAGAGCGCAGAAAGC 6946

Fig. 2E

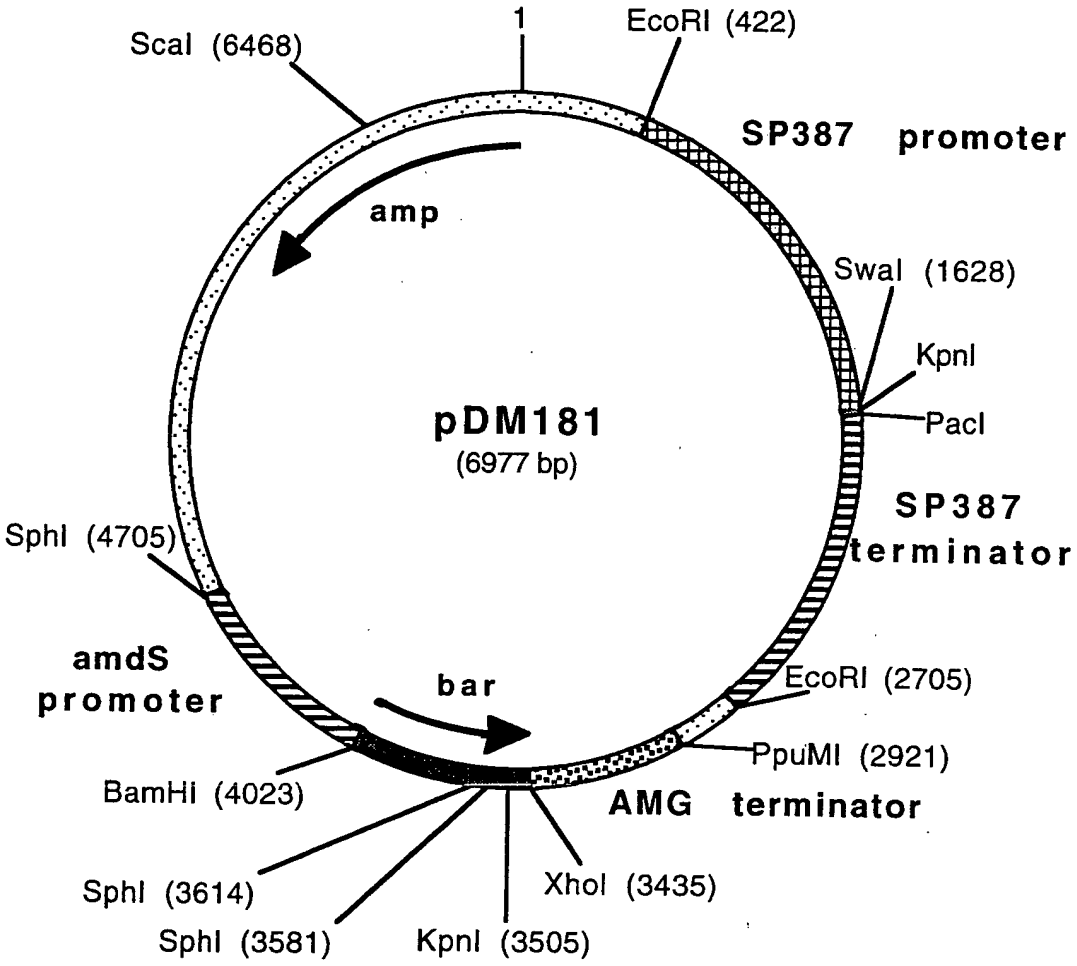
1
EcoRI (422)
ScaI (6468)
SP387 promoter
amp
SwaI (1628)
KpnI
PacI
pDM181
(6977 bp)
SP387
terminator
SphI (4705)
amdS
promoter
bar
EcoRI (2705)
PpuMI (2921)
BamHI (4023)
AMG terminator
SphI (3614)
XhoI (3435)
SphI (3581)
KpnI (3505)

Fig. 3

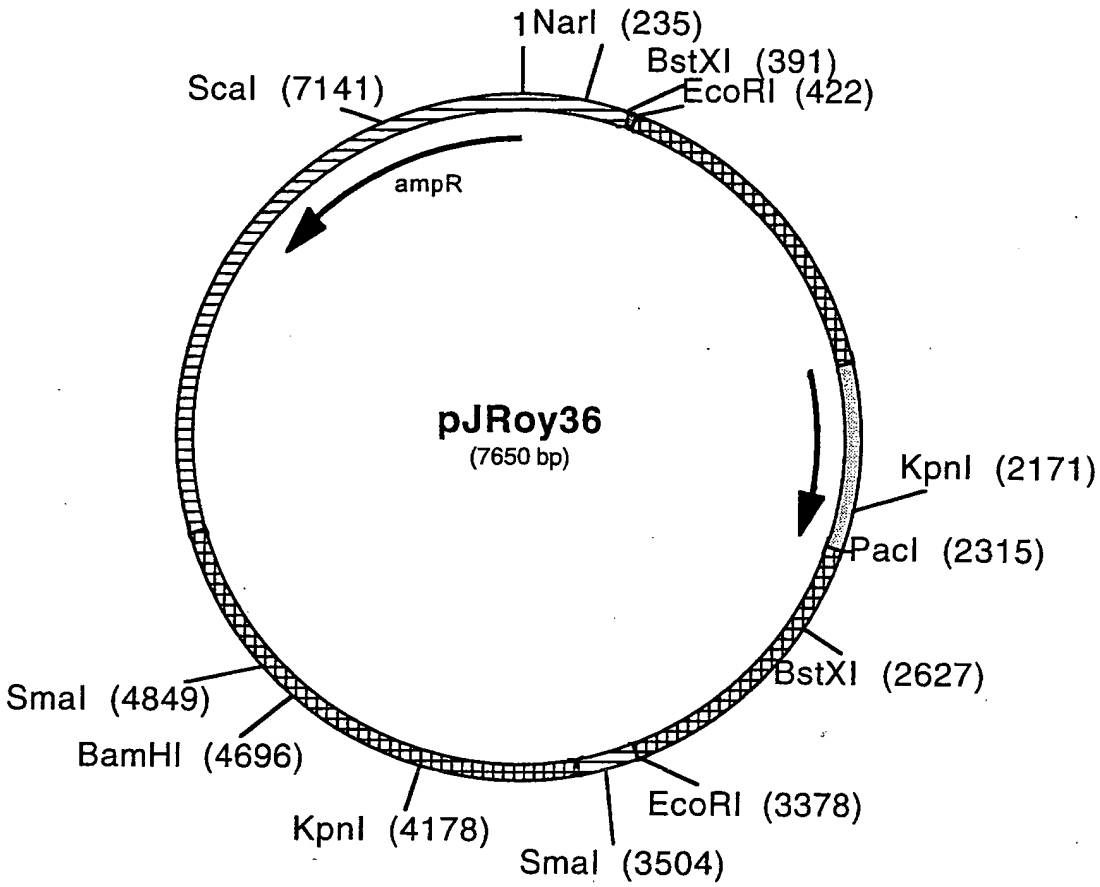
1NarI (235)
BstXI (391)
EcoRI (422)
ScaI (7141)
ampR
pJRoy36
(7650 bp)
KpnI (2171)
PacI (2315)
BstXI (2627)
SmaI (4849)
BamHI (4696)
KpnI (4178)
SmaI (3504)
EcoRI (3378)

Fig. 4

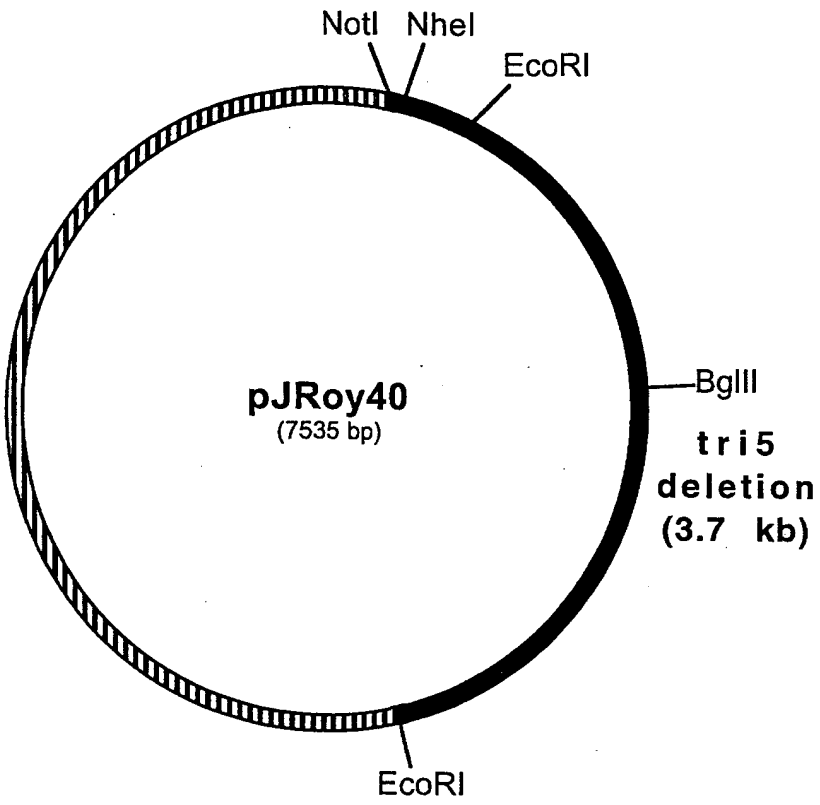
NotI
NheI
EcoRI
pJRoy40
(7535 bp)
BglII
tri5
deletion
(3.7 kb)
EcoRI

Fig. 5

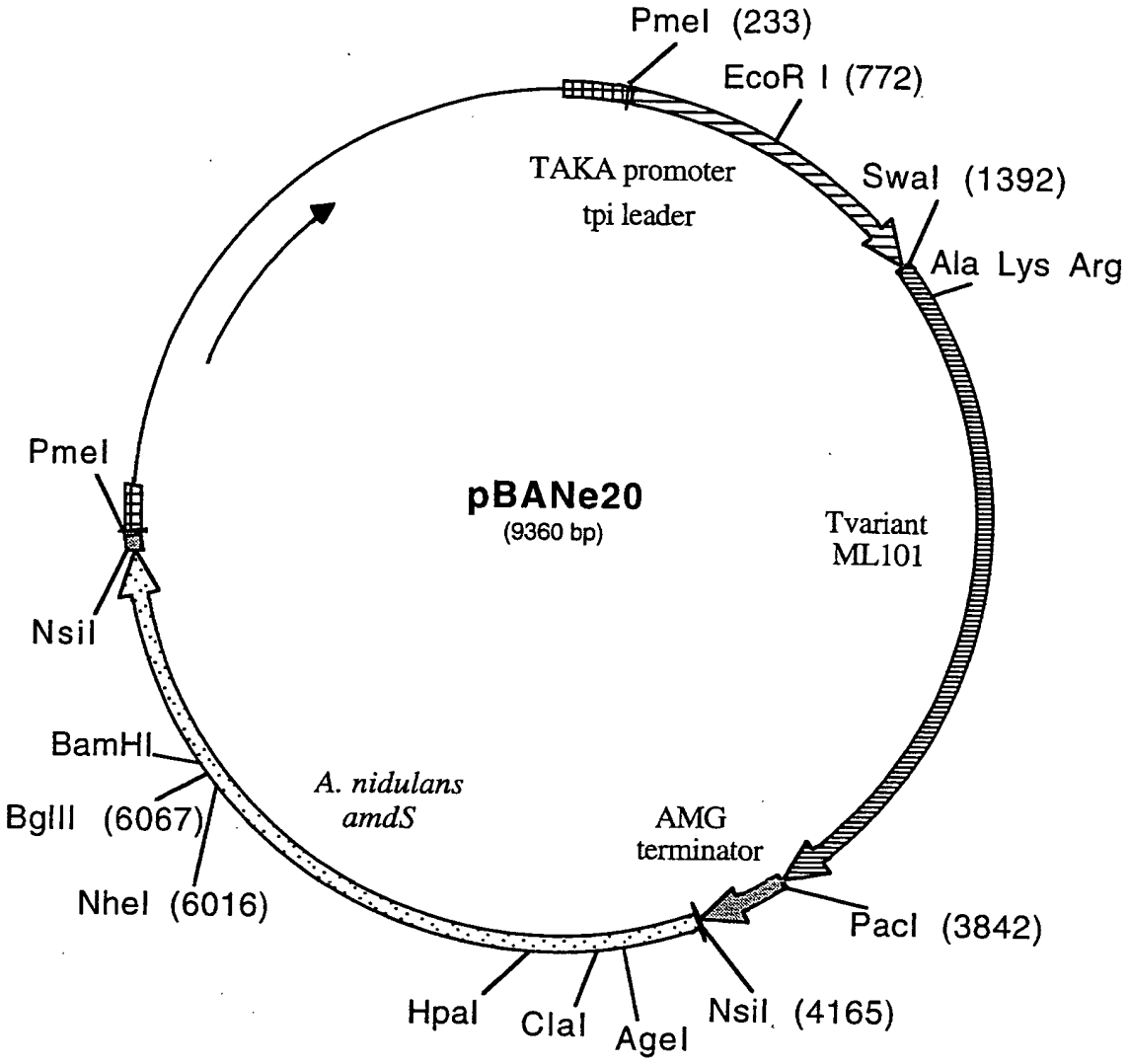
PmeI (233)
EcoR I (772)
TAKA promoter
tpi leader
SwaI (1392)
Ala Lys Arg
PmeI
pBANe20
(9360 bp)
Tvariant
ML101
NsiI
BamHI
BglII (6067)
NheI (6016)
A. nidulans
amdS
AMG
terminator
PacI (3842)
HpaI
ClaI
AgeI
NsiI (4165)

Fig. 6

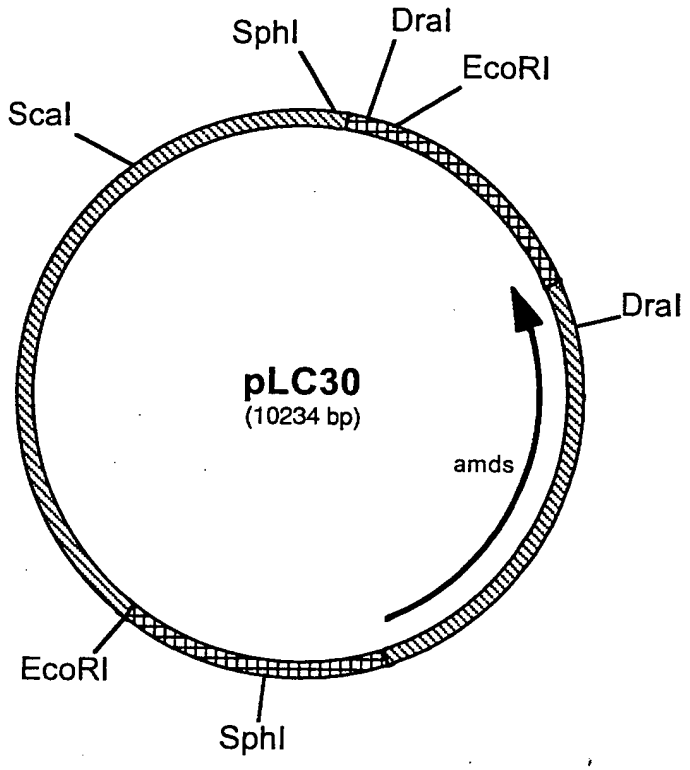

Fig. 7

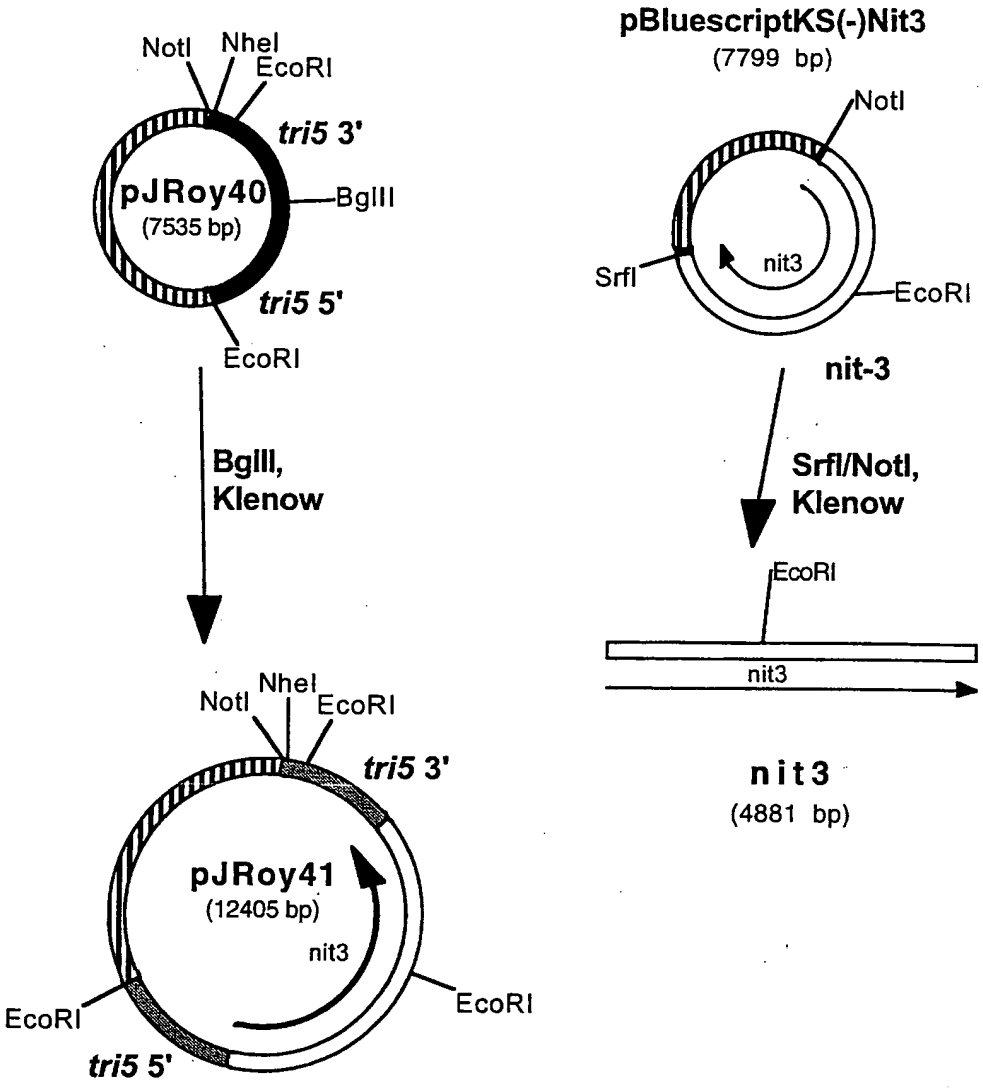
NotI
NheI
EcoRI
tri5 3'
pJRoy40
(7535 bp)
BglII
tri5 5'
EcoRI
BglII,
Klenow
NotI
NheI
EcoRI
tri5 3'
pJRoy41
(12405 bp)
nit3
EcoRI
EcoRI
tri5 5'
pBluescriptKS(-)Nit3
(7799 bp)
NotI
SrfI
nit3
EcoRI
nit-3
SrfI/NotI,
Klenow
EcoRI
nit3
nit3
(4881 bp)

Fig. 8

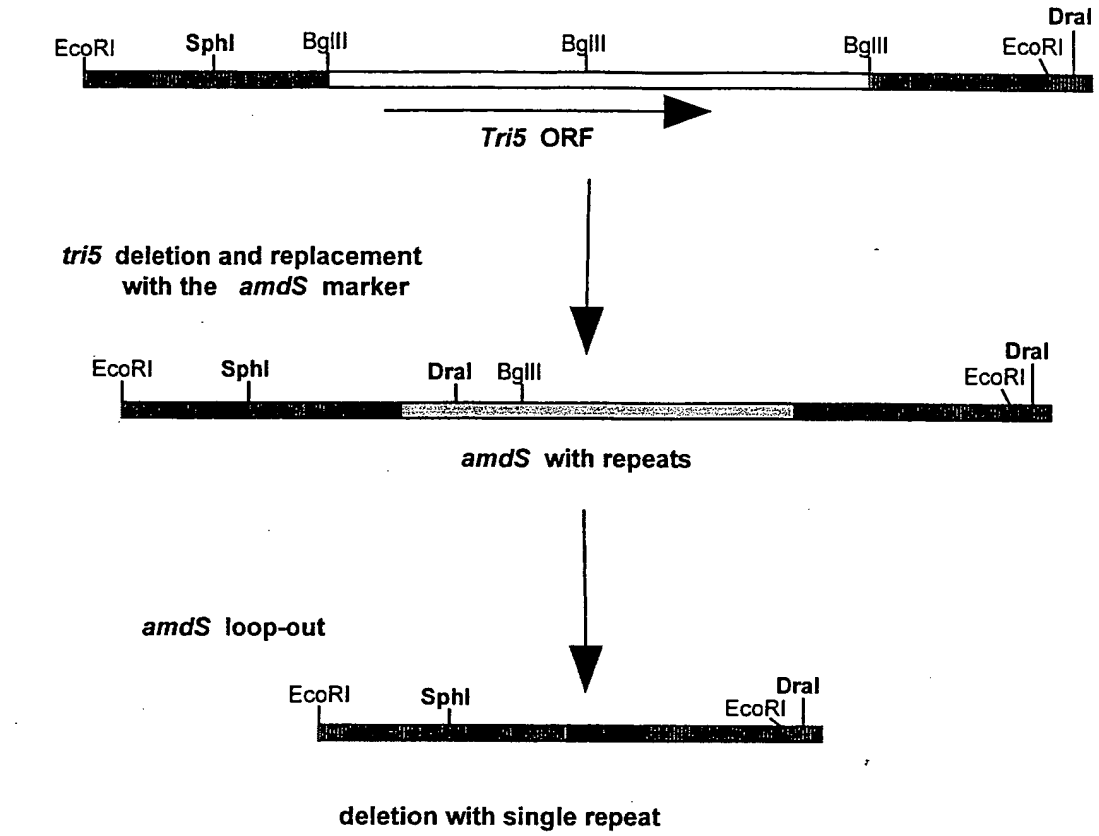
Wild type tri5 region
EcoRI
SphI
BglII
BglII
BglII
EcoRI
DraI
Tri5 ORF
tri5 deletion and replacement with the amdS marker
EcoRI
SphI
DraI
BglII
DraI
EcoRI
amdS with repeats
amdS loop-out
EcoRI
SphI
DraI
EcoRI
deletion with single repeat

Fig. 9

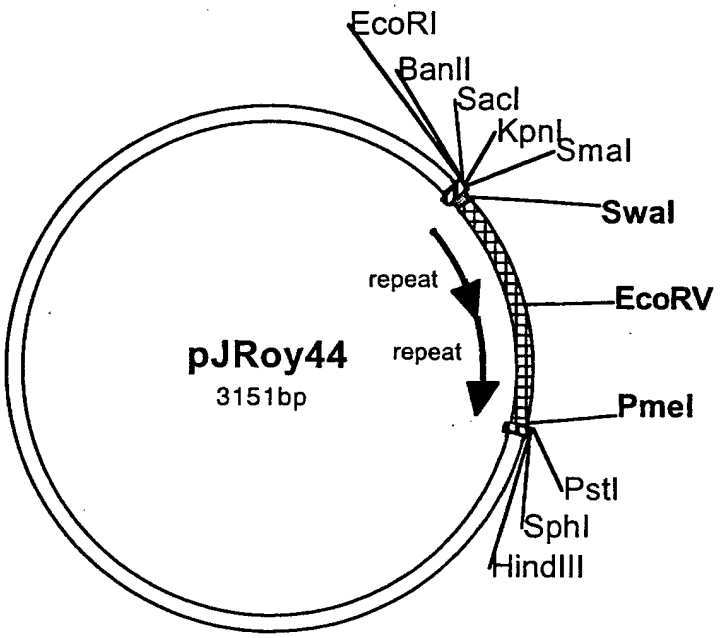
EcoRI
BanII
SacI
KpnI
SmaI
SwaI
repeat
EcoRV
pJRoy44
3151bp
repeat
PmeI
PstI
SphI
HindIII

Fig. 10

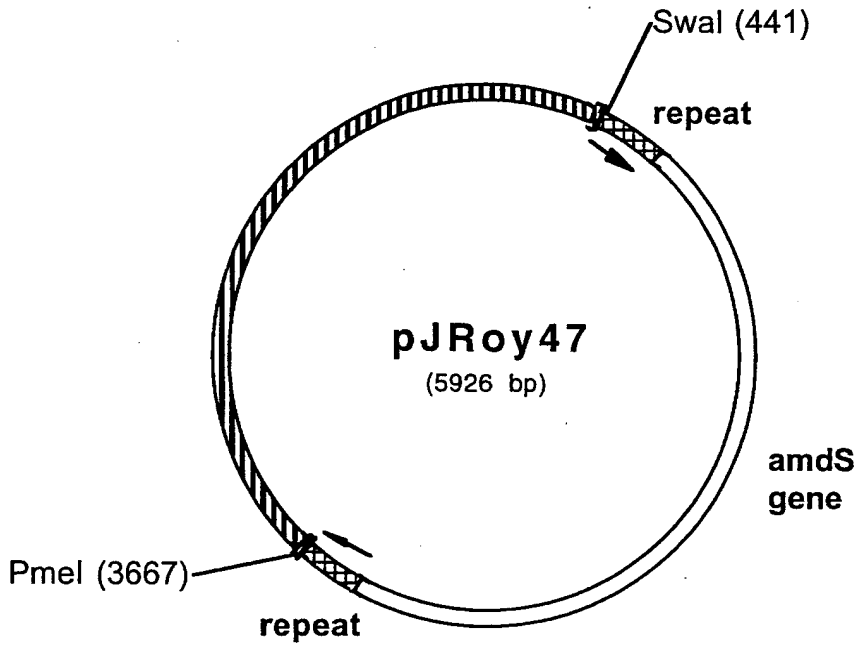

Fig. 11

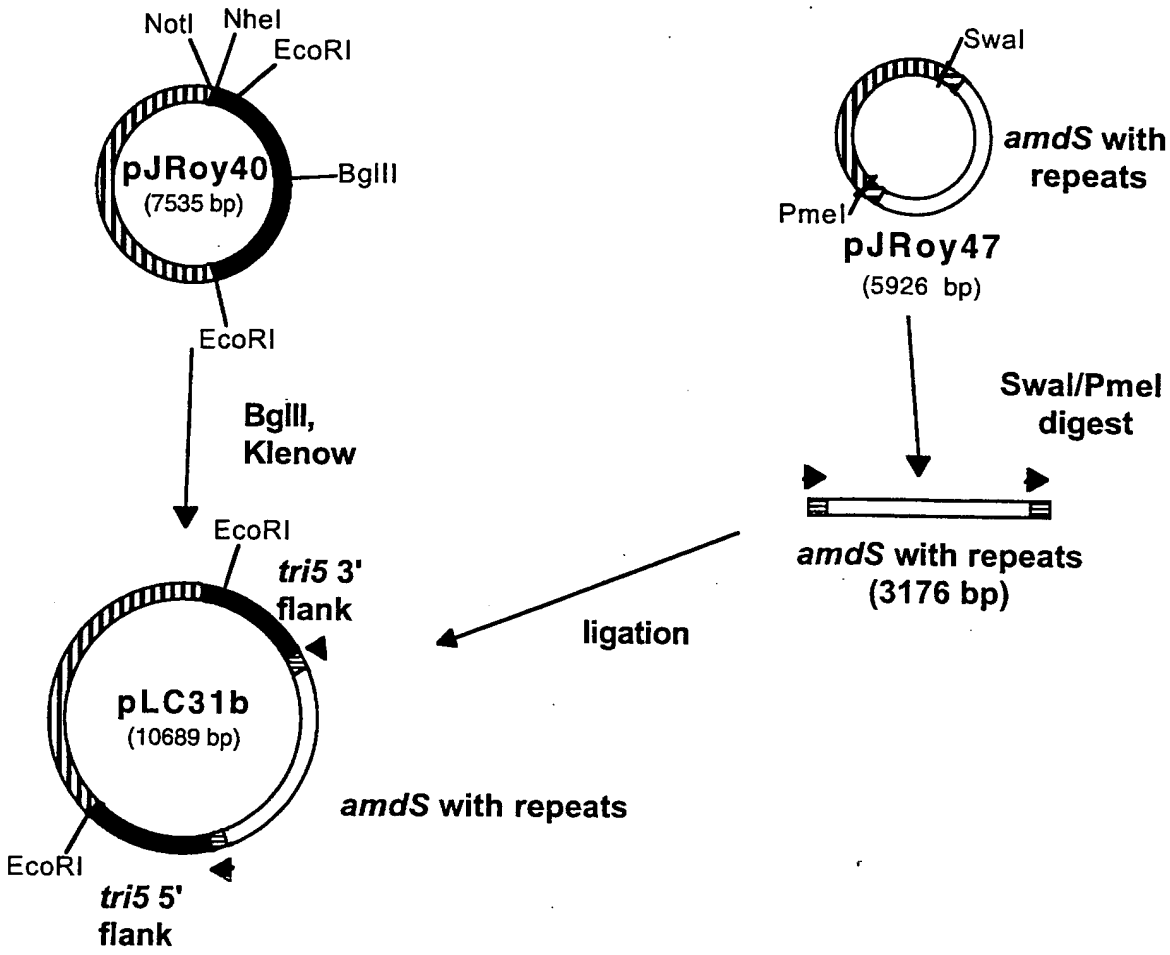
NotI
NheI
EcoRI
pJRoy40
(7535 bp)
BglII
EcoRI
BglII,
Klenow
EcoRI
tri5 3'
flank
pLC31b
(10689 bp)
amdS with repeats
EcoRI
tri5 5'
flank
ligation
SwaI
amdS with
repeats
PmeI
pJRoy47
(5926 bp)
SwaI/PmeI
digest
amdS with repeats
(3176 bp)

Fig. 12